

lift 4½ to 5½ feet above the floor. [Id. ¶¶ 12, 19; Catalano Dep. at 15-16]. Catalano testified that his last recollection of the event was reaching into the car and pressing the starter button with his right hand. [Catalano Dep. at 32, 39]. Catalano fell from the ladder, sustaining injuries including traumatic brain injury resulting in some memory loss. The stool's right front and right rear legs were damaged and bent inward.

Exactly how the fall occurred is in dispute. Catalano claims his feet never left the top of the stool and that the stool legs collapsed from his weight. Defendants contends that the only way the stool could have failed as it did is by placing the stool on its side and applying downward pressure to the end of the stool leg. Accordingly, Defendants allege Catalano may have knocked the stool over while climbing into the car then fallen on the stool, damaging the legs while attempting to climb down.

Plaintiffs and Defendants have introduced competing expert witnesses in an attempt to explain how and why the damage to the stool occurred during the accident. The testimony of Plaintiffs' witnesses Michael Sutton, an engineering expert, and Samuel Pendergrass, an expert metallurgist, are called into question here. Along with a motion for summary judgment [Doc. No. 17], Defendants filed motions *in limine* to exclude the testimony of both Sutton and Pendergrass under Federal Rule of Evidence 702. [Doc. No. 18, Doc. No. 19.]

Complicating testing of the damage to the stool is the fact that the character of the damage was changed sometime after Catalano's fall. It appears that the damaged right front stool leg was bent back and forth by some unknown person at some point between when the accident occurred and when the stool was examined by the expert witnesses. This manipulation caused

the size of the fracture to increase in size and a piece from one of the fractures to go missing. [Doc. No. 20, Exs. 7,8,9 and 11 ¶ 4].

II. Legal Standard

A. Rule 702

Federal Rule of Evidence 702, which governs the evaluation of expert testimony, provides as follows:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact at issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

The district court acts as a gatekeeper to “ensure that any and all scientific testimony . . . is not only relevant, but reliable.” *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 579 (1993). The *Daubert* gatekeeping function has been expanded to encompass not only scientific testimony, but any expert testimony involving technical or other specialized knowledge. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999). The Rule 702 analysis breaks down to a two part inquiry: (1) whether the proposed witness qualifies as an expert; and (2) whether the expert's opinions are reliable. *Id.* at 153.

The reliability inquiry is flexible. *Daubert*, 509 U.S. at 594. “Its overarching subject is the scientific validity and thus the evidentiary relevance and reliability—of the principles that underlie a proposed submission. The focus, of course, must be solely on principles and methodology, not on the conclusions that they generate.” *Id.* Reliability is determined by evaluating the following factors: (1) whether the theory or technique relied upon can be tested; (2) whether the theory or technique has been subjected to peer review; (3) whether there is a known or potential rate of error and the existence and maintenance of standards controlling the technique’s operation; and (4) whether the theory or method has been generally accepted by the scientific community. *Id.* at 592-94. This list of factors is intended to be helpful, not exhaustive. *Kumho*, 526 U.S. 151. The court need not apply every factor in every case. *Id.* at 149. The burden of establishing admissibility is on the proponent of the testimony and must be shown by a preponderance of the evidence. *Daubert*, 509 U.S. at 592 n.10.

B. Summary Judgment

Summary judgment is proper if “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *see also Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23 (1986). The moving party always bears the initial burden of “informing the district court of the basis for its motion,” and identifying the matter “it believes demonstrate[s] the absence of a genuine issue of material fact.” *Celotex*, 477 U.S. at 323. Once the movant has met the initial burden, “the non-moving party ‘may not rest upon mere allegation or denials of her pleading, but must set forth specific facts showing that there is a genuine issue for trial.’” *Hughes v. Bedsole*, 48 F.3d 1376, 1381 (4th Cir. 1995) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 256 (1986)). This is particularly important where the nonmoving party bears the burden of proof. *Hughes*, 48 F.3d at

1381. A genuine issue for trial exists “if the evidence is such that a reasonable jury could return a verdict for the non-moving party.” *Anderson*, 477 U.S. at 248. If the evidence is merely colorable, or is not significantly probative, summary judgment may be granted. *Id.* at 249-50. The judge’s inquiry, therefore, unavoidably asks whether reasonable jurors could find by a preponderance of the evidence that the plaintiff is entitled to a verdict.

When considering summary judgment motions, courts must view the facts in the light most favorable to the non-moving party. *Austin v. Clark Equip. Co.*, 48 F.3d 833, 835 (4th Cir. 1995). In reviewing the whole record, the court must “disregard all evidence favorable to the moving party that the jury is not required to believe” and therefore only “give credence to the evidence favoring the non-movant as well as that evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that [the] evidence comes from disinterested witnesses.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 151 (2000).

III. Discussion

A. Samuel Pendergrass

Plaintiffs obtained the expert services of metallurgist Samuel Pendergrass in connection with this case. Pursuant to his report, dated March 19, 2012, Mr. Pendergrass stated that “fine intergranular micro-cracks were found in the failed leg rail in the area of leg bending and cracking, indicating a brittle condition.” [Doc. No. 20, Ex. 11 ¶ 3]. Mr. Pendergrass also stated that “[t]he intergranular facets in the opened crack fracture surfaces exhibited fine dimples due to separation along microscopic precipitates that lined the grain boundaries. The intergranular network of fine grain boundary particlies provided a path of weakness resulting in intergranular fracture during sudden or bending loads.” [Id. ¶ 5]. Mr. Pendergrass explained that “[t]his

process of embrittlement is consistent with improper high temperature processing of the aluminum during manufacture.” [Id. ¶ 6]. Mr. Pendergrass concluded that as a result of the high silicone content in the metal, 6063-T5, the metal failed. Specifically, he concluded that the metal was brittle because it had a higher silicone content than permitted by the criteria or the chemical requirements of 6063-T5. [Id. ¶ 7].

During his deposition, Mr. Pendergrass conceded that he mistakenly identified the metal in the ladder as 6063-T5, when it was actually 6105-T5. [Doc. No. 20, Ex. F at 53-55]. Subsequently, on May 14, 2012, Mr. Pendergrass provided an addendum to his initial report. [Doc. No. 23, Ex. 4]. In his revised report, Mr. Pendergrass offered new opinions after reviewing new evidence. Mr. Pendergrass noted that since his initial report, “it was shown that the crack at the backside edge of the right front rail had formed sometime after the incident failure (resulting in the personal injury), but before [his] evaluation. The crack at the frontside edge of the right front rail had extended somewhat in length after the original incident and before [his] evaluation.” [Id.]. In summary, the new report, which does not mention that Mr. Pendergrass initially misidentified the metal in the ladder as 6063-T5, states that the microcracks initially thought to be the result of high silicone content, were not the result of work hardening, but grain direction caused during the course of the extrusion of the rail. Indeed, Mr. Pendergrass concluded that “[o]nly heat affects, such as encountered during manufacturing of the ladder rails, can result in the precipitation of fine intergranular particles, which caused intergranular embrittlement and the intergranular micro-cracks and fractures observed at the collapsed leg sites.” [Id. ¶ 6].

Mr. Pendergrass contends that mirco-cracks, which he originally concluded were the result of high silicone content, were present which were, in fact, created during the course of

extrusion of the metal. Counsel explained during oral argument on December 11, 2012 that improper heat treating, during manufacture, allowed particulates to form resulting in an intergranular crack or fracture and a catastrophic failure in terms of weight. Plaintiffs' counsel summarized his case explaining that this is a case of bad metal. Counsel went on to elaborate that the micro-cracks discovered by Mr. Pendergrass were not caused by work hardening, but from improper heating allowing precipitates to form. Mr. Pendergrass, however, does not causally connect the micro-cracks to the Plaintiff's accident. There has been no showing that any alleged defect reduced the strength of the metal. Indeed, the actual testing of the metal indicates that the metal meets the specifications for the ladder and, in fact, is 35% stronger than specifications. [Doc. No. 20, Ex. 12; Transcript of Oral Argument at 7]. In order to causally relate the micro-cracks to Plaintiff's accident, there must be a determination as to the amount of force applied to create the damage that Mr. Pendergrass opined was present on the step stool leg. During his deposition, Mr. Pendergrass was questioned "[h]ave you ever performed a calculation as to the amount of force necessary to cause the damage pattern seen in the step stool?" Mr. Pendergrass said he had not. [Doc. No. 20, Ex. F. at 10]. Mr. Pendergrass was also asked "[d]o you know whether is it physically possible for Mr. Catalano to step on the step stool as he described in his deposition, i.e., the four feet of the step stool were on the concrete floor surface caused the damage shown to the accident step stool?" In response, Mr. Pendergrass stated that he had no opinion on that. [Id. at 11]. Mr. Pendergrass also stated that he had no idea of when the first micro-cracks began. [Id. at 66]. In short, Mr. Pendergrass has failed to connect the alleged defect to Plaintiff's fall. There is no other expert, offered by the Plaintiff, that will testify as the causal connection between the defect described by Mr. Pendergrass and Plaintiff's fall.

For that reason, the Court finds that Mr. Pendergrass' opinion fails to meet the requirements of Rule 702 and is irrelevant to the issue of causation.

The case of *Graff v. Baja Marine Corp.*, 2007 WL 6900363 (N.D. Ga 2007) is instructive. In *Graff*, the Plaintiff's metallurgical expert, Rampolla, claimed that a gimbal housing was defective because it was less ductile than a properly manufactured gimbal housing. Rampolla contended that the gimbal fractured causing the boat accident because "beta phase platelets" weakened the gimbals' metal. Like Mr. Pendergrass, Rampolla, did not quantify the gimbal's reduction in strength as a result (of his observation) of "beta phase platelets." The Court in *Graff* held:

Unfortunately, the Court cannot find a basis for Rampolla's opinion that the housing contained "too many" or "too large a number of" beta phase platelets. He has identified neither the threshold at which the volume of beta phase becomes dangerous, excessive, or "too many" nor the size at which a beta phase platelet may be problematic. Further, although he contends that the beta phase in the gimbal housing surpassed these unknown thresholds, many of the platelets he measured were smaller than the dangerous size identified in his literature. Because Rampolla has not identified the number or size at which beta phase platelets become dangerous, there is no evidence, other than Rampolla's assurances, that the platelets he identified detrimentally affected the housing. Rampolla's unsupported opinion is insufficient; the court cannot simply take his word for it. *See McClain [v. Metabolife Int'l, Inc]*, 401 F.3d [1233] at 1240 [11th Cir. 2005] (finding expert testimony inadmissible because among other things, expert testifying about dosage of Metabolife could not "say how much is too much").

B. Michael Sutton

Plaintiffs also obtained the expert services of engineer Michael Sutton in connection with this case. Pursuant to his report, dated March 16, 2012, Mr. Sutton reports that he was unable to duplicate the same damage to an exemplar step stool as occurred to the step stool in the instant lawsuit. [Doc. No. 20, Ex. 10]. When he attempted to do so, the side rail failed, but in a

different location and additional damage resulted that was not present in the stool at issue. Mr. Sutton concluded that “the most probable explanation for the location and appearance of the failure was a defective material.” [Id. ¶ 10]. Mr. Sutton recommended that the metal be subjected to metallurgical testing. [Id.]. Based on the results of such testing by Mr. Samuel Pendergrass, Mr. Sutton adopted the finding of Mr. Pendergrass, including Mr. Pendergrass’ misidentification of the metal as 6063-T5 and concluded that “Tricam should have manufactured the product with a ductile and more forgiving material. A ductile material is the preferred choice in design of a product such as a steep [sic] stool, since it is more stable and has the capability to absorb more energy, resulting in greater toughness.” [Id. ¶ 13]. Mr. Sutton did not subsequently amend his expert report after it was discovered that Mr. Pendergrass misidentified the chemical composition of the failed side rail as 6063-T5 instead of 6105-T5.

Mr. Sutton’s expert opinion then is simply that he was unable to duplicate the damage done to the step stool at issue to an exemplar stool. Therefore, he explains that “the most probable explanation for the location and appearance of the failure was a defective material.” [Id. ¶ 10]. Without Mr. Pendergrass’ expert opinion, Mr. Sutton’s opinion is not helpful to the jury because it leaves the jury with only a **probable explanation** and without any scientific evidence supporting any such defect. Therefore, because this Court has determined that Mr. Pendergrass’ expert opinion will not be permitted, the Court will also exclude Mr. Sutton’s expert opinion because standing alone, Mr. Sutton’s opinion does not aid the jury.

C. Summary Judgment

At the hearing regarding the instant motions, the Court queried whether Plaintiffs could proceed to a jury trial if the Court granted Defendants’ Motions in Limine and excluded the

opinion testimony of Plaintiffs' experts. Plaintiffs' counsel agreed with the Court that if the Court were to grant Defendants' Motions in Limine excluding the experts' opinion testimony, Plaintiffs could not go to trial. Indeed, this Court has now determined that Plaintiffs' experts must be excluded and concludes that without such evidence, Plaintiff is unable to establish causation. Therefore summary judgment is appropriate and Defendants' Motion for Summary Judgment is GRANTED.

IT IS, THEREFORE ORDERED that:

- (1) Defendants' Motions in Limine [Doc. Nos. 18 and 19] are GRANTED; and
- (2) Defendants' Motion for Summary Judgment [Doc. No. 17] is GRANTED.

SO ORDERED.

Signed: January 4, 2013

A handwritten signature in black ink, reading "Graham C. Mullen", written over a horizontal line.

Graham C. Mullen
United States District Judge

